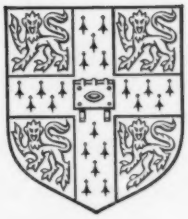
GENETICAL RESEARCH

EDITORIAL BOARD
CHARLOTTE AUERBACH W. HAYES
R. H. PRITCHARD MARY F. LYON R. RILEY A. ROBERTSON

EXECUTIVE EDITOR
E. C. R. REEVE

ASSISTANT EXECUTIVE EDITOR
N. S. WILLETTS

Volume 29. 1977



CAMBRIDGE UNIVERSITY PRESS
CAMBRIDGE · LONDON · NEW YORK

PUBLISHED BY
THE SYNDICS OF THE CAMBRIDGE UNIVERSITY PRESS

The Pitt Building, Trumpington Street, Cambridge CB2 1RP
Bentley House, P.O. Box 92, 200 Euston Road, London NW1 2DB
32 East 57th Street, New York, N.Y. 10022

© Cambridge University Press, 1976

Printed in Great Britain at the University Printing House, Cambridge

CONTENTS

No. 1 (February 1977)

IYENGAR, G. A. S., DEKA, P. C., KUNDU, S. C. and SEN, S. K. DNA syntheses in course of meiotic development in *Neurospora crassa* *page* 1

MISHRA, N. C. Characterization of the new osmotic mutants (*os*) which originated during genetic transformation in *Neurospora crassa* 9

ANDERSON, R. W. and DEE, J. Isolation and analysis of amoebal–plasmodial transition mutants in the Myxomycete *Physarum polycephalum* 21

AMYES, S. G. B. and SMITH, J. T. Trimethoprim resistance controlled by a combination of plasmid and chromosomal genes 35

KRISHNAPILLAI, V. Superinfection inhibition by prophage B3 of some R plasmids in *Pseudomonas aeruginosa* 47

POULTER, R. T. M. and HONEY, N. K. Genetic analysis of a cross between two homothallic strains of *Physarum polycephalum* 55

YU-SUN, C. C., WICKRAMARATNE, M. R. T. and WHITEHOUSE, H. L. K. Mutagen specificity in conversion pattern in *Sordaria brevicollis* 65

LYON, M. F. and GLENISTER, P. H. Factors affecting the observed number of young resulting from adjacent-2 disjunction in mice carrying a translocation 83

SHORT PAPER

ANDERSON, M. R. and DEPPE, C. S. Selection for conditional lethals: A general negative selective system for *Schizophyllum commune* 93

No. 2 (April 1977)

AVERY, P. J. The effect of random selection coefficients on populations of finite size – some particular models 97

NARAIN, PREM and POLLAK, EDWARD. On the fixation probability of a gene under random fluctuations in selection intensities in small populations 113

SUGUNA, S. G., WOOD, R. J., CURTIS, C. F., WHITELAW, A. and KAZMI, S. J. Resistance to meiotic drive at the M^D locus in an Indian wild population of *Aedes aegypti* 123

MACARTHY, J. C. and DOOLITTLE, D. P. Effects of selection for independent changes in two highly correlated body weight traits of mice 133

CENTER, ELIZABETH M. Genetical and embryological comparison of two mutations which cause foetal blebs in mice 147

NISSANI, MOTI and CHIH-PING LIU. Experiments with the *maroon-like* mutation of *Drosophila melanogaster* 159

WHITTINGHAM, D. G., LYON, MARY F. and GLENISTER, P. H. Long-term storage of mouse embryos at −196 °C: the effect of background radiation 171

SHORT PAPER

TRUSLOVE, GILLIAN M. A new allele at the patch locus in the mouse 183

No. 3 (June 1977)

BACKUS, B. T. Some bryozoan karyotypes and chromosome numbers 187

AVERY, P. J. and HILL, W. G. Variability in genetic parameters among small populations 193

GREAVES, J. H. and AYRES, P. B. Unifactorial inheritance of warfarin resistance in *Rattus norvegicus* from Denmark 215

EANES, W. F. and KOEHN, R. K. The correlation of rare alleles with heterozygosity: determination of the correlation for the neutral models 223

YANNOPOULOS, G. and PELECANOS, M. Studies on male recombination in Southern Greek *Drosophila melanogaster* population 231

MANWELL, C. and BAKER, C. M. A. Genetic distance between the Australian Merino and the Poll Dorset sheep 239

LYON, M. F. and MASON, I. Information on the nature of *t*-haplotypes from the interaction of mutant haplotypes in male fertility and segregation ratio 255

GHIKAS, A. and LAMB, B. C. The detection, in unordered octads, of 6+ : 2*m* and 2+ : 6*m* ratios with postmeiotic segregation, and of aberrant 4:4s, and their use in corresponding-site interference studies 267

GREEN, M. C., DURHAM, D., MAYER, T. C. and HOPPE, P. C. Evidence from chimaeras for the pattern of proliferation of epidermis in the mouse 279

SMITH, C. and BAMPTON, P. R. Inheritance of reaction to halothane anaesthesia in pigs 287

BOOKS RECEIVED 293

INDEX 295

VOLUME XXIX

INDEX OF SUBJECTS AND AUTHORS

Only main topics are listed, and reference is given to the first page of each paper in which they are discussed

Acid phosphatase
  polymorphism in sheep, 245
Adjacent-2 disjunction in mouse, 83
Aedes aegypti
  genetic drift, 123
  meiotic drive, 123
Agouti locus, in mouse, 289
Allozyme alleles, 225
Amethia semiconvoluta, 187
Aminopterin resistance, in bacteria, 35
Amyes, S. G. B., 35
Anderson, M. R., 93
Anderson, R. W., 21
Antibiotic resistance, in bacteria, 35
Ascobolus immersus
  gene conversion pattern, 65
  unordered octads, 275
Avery, P. J., 97, 193
Ayres, P. B., 215

Background radiation
  effect on stored embryos, 171
Backus, B. T., 187
Bacteriophage
  B3, 47
  ϕ, 47
Baker, C. M. A., 245
Bampton, P. R., 287
Basidiomycetes
  selection methods, 93
Body weight
  selection in mouse, 133
Bryozoa, chromosomes, 187

Carbonic anhydrase
  polymorphism in sheep, 245
Catalase
  polymorphism in sheep, 245
Center, E. M., 147
Chimaeras, in mouse, 289
Chromosomes, of bryozoa, 187
Coefficient of codon exchange, 245
Coefficient of random selection, 97
Coefficient of variation
  effect of chromosome number, 193
  effect of population size, 193
  effect of total map length, 193
Complementation
  in *Physarum*, 55
Conjugation, 47
Conversion pattern, 65
Curtis, C. F., 123
cw locus, in mouse, 83

Dee, J., 9
Deka, P. C., 1
Deppe, C. S., 93
Development, nuclear, 1
DNA, synthesis in *Neurospora*, 1
Doolittle, D. P., 133
Downless locus, in mouse, 289
Drosophila
  heterozygosity in natural populations, 225
Drosophila melanogaster
  genetic variation, 193
  maroon-like locus, 159
  maternal effects, 159
  premeiotic recombination, 235
  recombination in male, 235
  transformation, 159
  vermilion locus, 159
Durham, D., 289

Eanes, W. F., 225
eb locus, in mouse, 147
Embryo storage, 171
Epidermis, development in mouse, 289
Erythrocyte X-protein, 245
Escherichia coli
  antibiotic resistance, 35
  plasmids, 35
Ethylmethane sulphonate mutagenesis, 65

Fh locus, in mouse, 147
Filtration enrichment techniques, 83
Fixation probability, 113
Foetal blebs, in mouse, 147
Folate metabolism
  effect of sulphonamide, 35
Frameshift mutations
  gene conversion patterns, 65
Fredericella sultana
  chromosomes, 187

Haematomas, in mice, 147
Haemoglobin
  polymorphism in sheep, 245
Halothane reaction, in pigs, 297
Hardy–Weinberg equilibrium
  departures from, 193

Heteroduplex formation, 1
Heterozygosity, of allozyme alleles, 225
Hill, W. G., 193
Homothallic crosses
  in *Physarum*, 55
Honey, N. K., 55
Hoppe, P. C., 289
Hyalinella punctata
  chromosomes, 187
Hybrid DNA
  in bivalents, 275
  in *Neurospora*, 1

ICR 170 mutagenesis, 65
Infinite allele models, 225
Insertion sequences, 35
Interference, 275
Iyengar, G. A. S., 1

Karyotype, of bryozoa, 187
Kazmi, S. J., 123
Klebsiella
  antibiotic resistance, 35
  plasmids, 35
Koehn, R. K., 225
Krishnapillai, U., 47
Kundu, S. C., 1

L-factor, of mouse, 261
Ladder-rung models, 225
Lamb, B. C., 275
Liu, C.-P., 159
Lophopodella carteri
  chromosomes, 187
low locus, of mouse, 261
Lyon, M. F., 83, 171, 261
Lysogen, superinfection, 47

Malate dehydrogenase
  polymorphism in sheep, 245
Malignant hyperthermia syndrome, 297
Manwell, C., 245
Maroon-like locus, in *Drosophila*, 159
Mason, I., 261
Maternal effects, in *Drosophila*, 159
Mayer, T. C., 289
McCarthy, J. C., 133
M^D locus, in *Aedes aegypti*, 123
Meiosis, in *Neurospora*, 1
Meiotic drive, 123
Migration, 245
Mishra, N. C., 9
Mosquitoes
  genetic control, 123
  meiotic drift, 123
Mus musculus
  agouti locus, 289
  chimaeras, 289
  eb locus, 147
  epidermis development, 289
  fh locus, 147
  foetal blebs, 147
  haematomas, 147
  L-factor, 261
  my locus, 147
  myelencephalic bleb, 147
  patch locus, 183
  radiation effects on embryos, 171
  storage of embryos, 171
Mutagen specificity, 65
my locus, in mouse, 147
Myxomycetes
  amoebal–plasmodial transition, 21

Narain, P., 113
Neottiella rutilans
  nuclear size, 1
Neurospora crassa
  aberrant tetrads, 275
  meiosis, 1
  nuclear development, 1
  osmotic mutants, 9
  transformation, 9
Neutral alleles, 97, 225
Nissani, M., 159
Nitrosoguanidine mutagenesis, 65
Nuclear development
  in *Neurospora*, 1
Nucleus, DNA content, 1

Octads, in fungi, 275
Osmotic mutants
  in *Neurospora*, 9

Paludicella articulata
  chromosomes, 187
Patch locus, in mouse, 183
Pectinatella magnifica
  chromosomes, 187
Pelecanos, M., 235
Physarum polycephalum
  amoebal–plasmodial transition, 21
  fusion types, 21
  genetic analysis, 55
  homothallic crosses, 55
Pig, halothane reaction, 297
Plasmid
  interaction with bacterial genes, 35
  R18-1, 47
  R18-3, 47
  R388s, 35
  transduction, 47
  transposons and insertion sequences, 35
Plasmodial fusion, 55

Plumatella emarginata
chromosomes, 187
Pollak, E., 113
Polymorphism
in sheep, 245
Population size
effect on selection, 97, 113
effect on variability, 193
Postmeiotic segregation, 275
Pottsiella erecta
chromosomes, 187
Poulter, R. T. M., 55
Prophage
B3, 47
ϕ, 47
Pseudomonas aeruginosa
bacteriophage B3 inhibition, 47

'Quasi-neutral' alleles, 97

R-factor
interaction with chromosome, 35
Random selection, 97
Rattus norvegicus
warfarin resistance, 215
Recombination
effect of temperature, 235
genetic suppression, 235
in male *Drosophila*, 235
Robertsonian translocations, 83

Saccharomyces cerevisiae
gene conversion pattern, 65
Schizophyllum commune
selection for conditional lethals, 93
Segregation, aberrant, 275
Segregation ratio
effect on t-locus of mouse, 261
Selection coefficients, 97
Selection
effect on genetic variation, 193
Selection, in mouse, 133
Selection, intensity, 113
Selection
relation to genetic distance, 245
Sen, S. K., 1
Serum esterase
polymorphism in sheep, 245
Sex ratio distorter factor, 123
Sheep
genetic distance between breeds, 245
polymorphisms, 245
Smith, C., 297
Smith, J. T., 35
Sordaria brevicollis
gene conversion, 65
meiotic segregation, 65
mutagenesis, 65
tetrads, 275
Sordaria finicola
tetrads, 275
Standard genetic distance, 245
Substitution mutations
gene conversion pattern, 65
Suguna, S. G., 123
Sulphonamide resistance
in bacteria, 35
Superinfection of lysogens, 47
Suppression, of recombination, 235

T-locus, of mouse, 83
Temperature
effect on recombination, 235
Tetrads, in fungi, 275
Transduction, of plasmids, 47
Transferable drug resistance, 35
Transferin
polymorphism in sheep, 245
Transformation
in *Drosophila*, 159
in *Neurospora*, 9
Translocations
effect on disjunction, 83
Transposon, 21, 35
Tribolium
selection for larval weight, 133
Trimethoprim resistance, 35
Truslove, G. M., 183

Unordered octads, in fungi, 275
UV mutagenesis, 65

Variability, genetic, 193
Vermilion locus in *Drosophila*, 159
Vitamin K deficiency, 215

Warfarin resistance, 215
inheritance in *Rattus norvegicus*, 215
Whitehouse, H. L. K., 65
Whitelaw, A., 123
Whittingham, D. G., 171
Wickramaratne, M. R. T., 65
Wood, R. J., 123

Yannopoulos, G., 231
Yu-Sun, C. C., 65

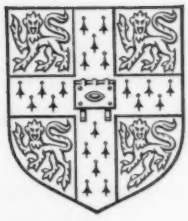
GENETICAL RESEARCH

EDITORIAL BOARD
CHARLOTTE AUERBACH W. HAYES
R. H. PRITCHARD MARY F. LYON R. RILEY A. ROBERTSON

EXECUTIVE EDITOR
E. C. R. REEVE

ASSISTANT EXECUTIVE EDITOR
N. S. WILLETTS

Volume 30. 1977



CAMBRIDGE UNIVERSITY PRESS
CAMBRIDGE · LONDON · NEW YORK

PUBLISHED BY
THE SYNDICS OF THE CAMBRIDGE UNIVERSITY PRESS

The Pitt Building, Trumpington Street, Cambridge CB2 1RP
Bentley House, P.O. Box 92, 200 Euston Road, London NW1 2DB
32 East 57th Street, New York, N.Y. 10022

© Cambridge University Press, 1977

Printed in Great Britain at the University Printing House, Cambridge

CONTENTS

No. 1 (August 1977)

LUNN, ASGEIR, COOKE, DAVID and HAUGLI, FINN. Genetics and biochemistry of 5-Bromodeoxyuridine resistance in *Physarum polycephalum* *page* 1

MOLNÁR, J., HOLLAND, I. B. and MÁNDI, YVETTE. Selection of *lon* mutants in *Escherichia coli* by treatment with phenothiazines 13

PINNEY, R. J., JACOB, A. E., HEDGES, R. W. and SMITH, J. T. Dislodgement and thymineless elimination of N-group plasmids 21

LEWIS, D. and VAKERIA, DINA. Resistance to *p*-fluorophenylalanine in diploid/haploid dikaryons: dominance modifier gene explained as a controller of hybrid multimer formation 31

WARD, R. D. and BEARDMORE, J. A. Protein variation in the plaice, *Pleuronectes platessa* L. 45

LYON, MARY F. and BECHTOL, KATHLEEN B. Derivation of mutant *t*-haplotypes of the mouse by presumed duplication or deletion 63

KIDWELL, MARGARET GALE. Reciprocal differences in female recombination associated with hybrid dysgenesis in *Drosophila melanogaster* 77

OHTA, TOMOKO. On the gene conversion model as a mechanism for maintenance of homogeneity in systems with multiple genomes 89

No. 2 (October 1977)

ISHII, K. and CHARLESWORTH, B. Associations between allozyme loci and gene arrangements due to hitch-hiking effects of new inversions 93

WATANABE, T. K. and LEE, W. H. Sterile mutation in *Drosophila melanogaster* 107

FRANKHAM, R. Optimum selection intensities in artificial selection programmes: an experimental evaluation 115

COCKERHAM, C. C. and WEIR, B. S. Digenic descent measures for finite populations 121

BURNET, B., SEWELL, D. and BOS, M. Genetic analysis of larval feeding behaviour in *Drosophila melanogaster* 149

KARUNAKARAN, V. and JOHNSTON, J. R. Genetic analysis of nystatin-resistant mutants of *Saccharomyces cerevisiae* 163

HUGHES, V. and MEYNELL, G. G. The contribution of plasmid and host genes to plasmid-mediated interference with phage growth 179

Cox, B. S. Allosuppressors in yeast 187

Short Paper

Arst, H. N. Jr. The basis for an apparent auxotrophy for reduced sulphur metabolites in *s*F⁻ mutants of *Aspergillus nidulans* 207

No. 3 (December 1977)

Medina, Juan Ramon. Continuous variation of genic dosage in *Phycomyces* 211

Bijlsma, R. and van Delden, W. Polymorphism at the G6PD and 6PGD loci in *Drosophila melanogaster*. I. Evidence for selection in experimental populations 221

Katz, Alan J. and Enfield, Franklin D. Response to selection for increased pupa weight in *Tribolium castaneum* as related to population structure 237

David, J., Bocquet, C. and de Scheemaeker-Louis, M. Genetic latitudinal adaptation of *Drosophila melanogaster*: new discriminative biometrical traits between European and equatorial African populations 247

Greaves, J. H., Redfern, R., Ayres, P. B. and Gill, J. E. Warfarin resistance: a balanced polymorphism in the Norway rat 257

Nemerofsky, Arnold. Effect of pre-treatment with 5-bromouracil in an ultraviolet sensitive strain of *Neurospora crassa* 265

Johnson, Ben F. Fine structure mapping and properties of mutations suppressing the *lon* mutation in *Escherichia coli* K-12 and B strains 273

Whittingham, D. G., Lyon, Mary F. and Glenister, P. H. Re-establishment of breeding stocks of mutant and inbred strains of mice from embryos stored at −196 °C for prolonged periods 287

Short Paper

Anderson, R. W. A plasmodial colour mutation in the Myxomycete *Physarum polycephalum* 301

Errata 307

Books received 308

Index 309

VOLUME XXX

INDEX OF SUBJECTS AND AUTHORS

Only main topics are listed, and reference is given to the first page of each paper in which they are discussed

Aberrant recombination, 77
Acid phosphatase polymorphism, 45
Adenosine deaminase polymorphism, 45
Adenylate kinase polymorphism, 45
Alcohol dehydrogenase polymorphism 45
Alkaline phosphatase polymorphism, 45
Allosuppressors, in yeast, 187
Allozyme loci, and gene rearrangements, 93
Aminopeptidase polymorphism, 45
α-amylase, hitch-hiking effect, 93
Arst, Herbert, N. Jr., 207
Artificial selection programmes, 115
Aspergillus nidulans
  cysteine metabolism, 207
  methionine metabolism, 207
  sulphur auxotrophic mutants, 207
Ayres, P. B., 257

Bacteriophage
  interference by plasmids, 179
  λ, 179
  P22, 179
  φI, 179
  St, 179
  T7, 179
Beardmore, J. A., 45
Bechtol, Kathleen B., 63
Bijlsma, R., 221
Biometrical variation, in *Drosophila* sp., 247
Bocquet, C., 247
Bos, Martin, 149
5-bromodeoxyuridine resistance, 1
5-bromouracil treatment, 265
Burnet, Barrie, 149

Candida sp.
  polyene resistance, 163
Charlesworth, B., 93
Chlorpromazine, mutagenesis, 13
Cockerham, C. Clark, 121
Coefficient of coancestry, 121
Coenocytic fungi, heterokaryosis, 211
Competition, in *Drosophila*, 149
Complementation, in heterokaryons, 211
Continuous variation, in *Phycomyces*, 211
Cooke, David, 1
Coprinus lagopus
  dikaryon formation, 31
  p-fluorophenylalanine resistance, 31
Cox, B. S., 187
Creatine kinase, 45
Curing of plasmids, 13, 21

David, J., 247
De Scheemacker-Louis, M., 247
Deletion, of *t*-complex in mouse, 63
Descent measures, 121
Didymium iridis
  plasmodial colour mutations, 287
Diffusion models, and gene conversion, 77
Digenic descent measures, 121
Dikaryons, hybrid multimer formation, 31
Diploid/haploid dikaryons, 31
Dominance modifier genes, 31
Drosophila melanogaster
  allozyme loci, 93
  biometrical traits, 247
  competition, 149
  glucose-6-phosphate dehydrogenase, 221
  hitch-hiking effect, 93
  hybrid dysgenesis, 77
  inversions, 93
  latitude adaption, 247
  larval feeding behaviour, 149
  lethal gene frequency, 107
  male recombination frequencies, 77
  6-phosphogluconate dehydrogenase, 221
  recombination differences, 77
  selection in experimental populations, 221
  sterile mutants, 107
Drosophila persimilus
  hitch-hiking effect, 93
Drosophila pseudoobscura
  hitch-hiking effect, 93
Drosophila robusta
  latitude adaption, 247
Drosophila simulans
  latitude adaption, 247
Drosophila subobscura
  hitch-hiking effect, 93
  latitude adaption, 247
Duplication, of t-complex in mouse, 63

Dysgenesis, 77

Embryo storage, 287
Enfield, Franklin D., 237
Escherichia coli B
  lon and *sul* loci, 273
Escherichia coli K-12
  ftsA allele, 273
  host-plasmid interactions, 179
  lon mutations, 273
  phage interference, 179
  selection for *lon* mutants, 13
strA (*rpsL*) locus, 179
sul loci, 273
ultraviolet sensitivity, 273
esterases, of *Pleuronectes platessa*, 45

Feeding behaviour, in *Drosophila* larvae, 149
Feeding rate, effect on larval competition, 149
p-fluorophenylalanine resistance, 31
Frankham, R., 115
Fungi, polyene resistance, 163

Gene conversion, and homogeneity, 89
Genetic variation, patterns in *Pleuronectes platessa*, 45
Genic dosage, in *Phycomyces*, 211
Gill, J. E., 257
Glenister, P. H., 287
Glyceraldehyde-3-phosphate dehydrogenase polymorphism, 45
α-glycerophosphate dehydrogenased polymorphism, 45
Greaves, J. H., 257

Haemoglobin, polymorphism in *Pleuronectes platessa*, 45
Haploid/haploid dikaryons, 31
Haugli, Finn, 1
Hedges, R. W., 21
Heterokaryons, of *Phycomyces*, 211
Heterokaryosis, evolution of, 211
Heterozygosity, in *P. platessa*, 45
Hitch-hiking effect, 93
Homogeneity, and gene conversion, 89
Hughes, Victoria, 179
Hybrid dygenesis, 77
Hybrid multimer formation, 31

Jacob, A. E., 21
Johnston, J. R., 163
Johnstone, Ben F., 273

Karunakaran, V., 163
Katz, Alan J., 273
Kidwell, Margaret Gale, 77

Lactate dehydrogenase polymorphism, 45
Latitudinal adaption, in *Drosophila* sp., 247
Larval feeding behaviour, in *Drosophila*, 149
Lee, Won Ho, 107
Leucine aminopeptidase polymorphism, 45
Lewis, D., 31
Limanda limanda
  protein variation, 45
Linkage disequilibrium, estimation in *Drosophila*, 121
lon mutants, of *Escherichia coli*, 13
Lunn, Asgein, 1
Lyon, Mary F., 63, 287

Malate dehydrogenase polymorphism, 45
Malic enzyme, polymorphism, 45
Mandi, Yvette, 13
Medina, Juan Ramon, 211
Meynell, G. G., 179
Modifier genes, 31
Molnár, J., 13
Mouse, embryo storage, 287
  t-complex interactions, 63
Muscle protein polymorphisms, 45
Mutation, in frozen embryos, 287
  mechanism of, 265
Myxomycetes, plasmodial colour mutations 287

N group plasmids, 21
Nemerofsky, Arnold, 265
Neurospora crassa
  5-bromouracil treatment, 265
  polyene resistance, 163
  ultraviolet sensitivity, 265
'Nothing dehydrogenase' polymorphism, 45
Nystatin resistance in fungi, 163

Ochre super-suppressor, in yeast, 187
Octanol dehydrogenase polymorphism, 45
Ohata, Tomoko, 89

Pedigree analysis, 121
Phage, see bacteriophage
Phenothiazines, mutagenic effects, 13
Phosphoglucomutase polymorphism, 45
6-phosphoglucose isomerase polymorphism, 45
Phycomyces blakesleeanus
  continuous variation, 211
  genic dosage, 211
Physarum polycephalum
  5-bromodeoxyuridine resistance, 1
  plasmodial colour mutants, 287
Pinney, R. J., 21
Plasmids, curing by phenothiazines, 13
  interactions with phage genes, 179
  thymineless curing, 21

Pleuronectes platessa
protein variations, 45
Polyene resistance in fungi, 163
Polygenic traits, in *Drosophila*, 247
Population structure, effect on selection, 237
Promethazine, mutagenic effects, 13

R factors, interactions with host genes, 179
interference with phage growth, 179
R56, 179
R64, 179
Rattus norvegicus
warfarin resistance balanced polymorphism, 257
Recombination, in *Drosophila* male, 72
Redfern, R., 257

Saccharomyces cerevisiae
allosuppressors, 187
nystatin resistance, 163
Saccharomycopsis lipolytica
polyene resistance, 163
Selection, effects of population structure, 237
Selection programmes, 115
Sewell, David, 149
Smith, J. T., 21
Sorbitol dehydrogenase polymorphism, 45
Sterile mutants, in *Drosophila*, 107
Streptomycin, resistance and dependance in *E. coli*, 179

t-haplotypes of mouse, 63
Thymidine incorporation, *in vivo* assay, 1
Thymidine kinase, assay, 1
Thymidine elimination of N group plasmids, 21
Tribolium castaneum
selection for pupal weight, 237

Ultraviolet sensitivity
in *Escherichia coli*, 13
in *Neurospora crassa*, 265

Vakeria, Dina, 31
Van Delden, W., 221
Vitamin K, deficiency in *R. norvegicus*, 257

Ward, R. D., 45
Warfarin resistance, in *R. norvegicus*, 257
Watanabe, Takao K., 107
Wein, B. S., 121
Whittingham, D. G., 287